

U.S.S.N. 10/604,498

6

15-XT-6176 (GEMS-A 0130 PA)

REMARKS

In the Final Office Action dated October 18, 2005, claims 1-16, 18-20, and 22-26 are pending. Claims 1, 10, 16, 18, 20, and 22 are independent claims from which all other claims depend therefrom. Claims 10, 13, and 20 are allowed. Claims 11, 25, and 26 are herein amended. Note that claims 11, 25, and 26 are not amended for patentability reasons, but rather for clarification reasons. Also, note that the amendments to claims 11, 25, and 26 do not raise new issues that would require further consideration or search. The amendments and/or added limitations to claims 11, 25, and 26 were similarly recited in claim 22, which has already been considered and examined. Thus, Applicants, respectfully, request that the amendments be entered.

The Office Action states that claims 1-9, 11-12, 14-16, 18-19, and 23-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Klostermann (U.S. Pat. No. 5,056,126) in view of Takahata (U.S. Pat. No. 6,838,798 B2). The Office Action further states that claim 22 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Takahata in view of Warren (U.S. Pat. No. 6,390,875 B1).

With respect to claims 1 and 18, the Office Action states that Klostermann and Takahata disclose the integrally forming of a shaft and an x-ray tube rotor core, since the Examiner is of the position that the term "integral" means "formed as a unit with another part". The Office Action states that the term "integrally formed" does not suggest or imply that the "parts are cast or molded into a single uniform piece". Applicants submit that regardless of the definition of the term "integral" it is clear that Klostermann and Takahata fail to teach or suggest the integrally forming of a shaft and an x-ray tube rotor core as "a single uniform piece" or as recited in claims 1 and 18 as "a single component". Applicants prefer the use of the terms "as a single component" rather than as "a single uniform piece" because the term "uniform" implies additional limitations over and above the intended recitation of a single component. The term "uniform" can imply that the dimensions, materials, or some other aspect of the piece or component is constant or the same. Applicants do not

U.S.S.N. 10/604,498

7

15-XT-6176 (GEMS-A 0130 PA)

intend for the recited limitations to be narrowly construed with the possible implications of the term "uniform."

It is clear that the shafts and rotors of both Klostermann and Takahata are not integrally formed as a single component. The attaching or inserting of a shaft into a rotor core does not change the fact that the shaft and the rotor core are separate non-integrally formed pieces.

Thus, both Klostermann and Takahata fail to teach or suggest each and every element of claims 1 and 18. Since claims 2-9, 11-12, 14-15, 19, 23-26 depend from claims 1 and 18, respectively, they too are novel, nonobvious, and are in a condition for allowance for at least the same reasons.

With respect to claims 1-9, 11-12, 14-16, 18-19, and 22-26, Applicants submit that Takahata is nonanalogous art and thus is not a valid reference. Applicant is unsure of the U.S. classification of the present application, but notes that Takahata is not of the same U.S. classification as that of Klostermann or Warren, which disclose x-ray tubes as does the present invention. Referring to MPEP 2141.01(a), while the Patent Office classification of references and cross-references in the official search notes are some evidence of "nonanalogy" or "analogy" respectively, the court has found "the similarities and differences in structure and function of the inventions to carry far greater weight." *In re Ellis*, 476 F.2d 1370, 1372, 177USPQ526, 527 (CCPA 1973). In addition, to the classifications of the references inferring nonanalogy, Applicant submits that the structure, functions, and purposes of the electric machine of Takahata are clearly different than that of the present invention. Takahata would not have logically commended itself to the inventors' attention in considering the problems solved by the claimed assemblies and methods of the present application.

In developing a rotor for an x-ray tube of a computed tomography imaging system or the like, one would clearly not look to an electric machine designed for a compressor of a residential or commercial air-conditioning system. It is irrelevant that the electric machine of Takahata has a stator and a rotor. Many electric motors have a stator and a rotor. One cannot assume that all electric motors that have stators and rotors are related and analogous nor can one be expected to search all

U.S.S.N. 10/604,498

8

15-XT-6176 (GEMS-A 0130 PA)

electric motors in all arts in solving the problems associated with a particular system in a particular art. Such a task would be unreasonably burdensome.

Electric motors can be substantially different from application to application. The electric motor for an air-conditioning compressor is different than and is not interchangeable with an electric motor of an x-ray tube. For example, in one embodiment of the present invention a squirrel cage rotor design is provided, which is clearly unlike the permanent magnet design of the rotor of Takahata. The squirrel cage includes multiple slots and bars. The bars are integrally formed with end caps as a single component. The permanent magnet design of Takahata simply includes a few magnets that are held on a rotor core. Thus, the rotor designs or assemblies are different.

In addition, the rotor claimed includes a sleeve that is used to prevent the reduction in the amount of flux and the transfer of electromagnetic current. On the other hand, the protective cover 19 of Takahata is incorporated and used to cancel out the magnetic flux from higher harmonic current components. There is also no implication that the use of an element in the air-conditioning setting is appropriate for use in the x-ray imaging environment. The operating environments in an air-conditioner are substantially different than that within an x-ray tube. Thus, one would clearly not look to an electric motor for an air-conditioning compressor in designing an electric motor for an x-ray tube. Takahata would not be reasonably pertinent to the particular problems solved by the claimed inventions. Thus, the Applicants submit that Takahata is nonanalogous art and to use such a reference is far reaching at best.

Also, there is clearly no motivation or suggestion to combine and modify the stated references to arrive at the claimed inventions. There is no motivation or suggestion in either Klostermann or Takahata for the combination thereof. The two references are unrelated and are directed to different art. See MPEP 2143 and *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

U.S.S.N. 10/604,498


9

15-XT-6176 (GEMS-A 0130 PA)

In light of the amendments and remarks, Applicants submit that all of the objections and rejections are now overcome. The Applicants have added no new matter to the application by these amendments. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, he is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

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